

Application 10/710,574

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## AMENDMENT TO THE CLAIMS

### Claim 1 (Currently Amended)

A method of nondestructive structural and functional integrity monitoring of a subject that ~~do apply any type of energy to the said subject or an aggregate said body is a part of, where in examples of such energy are electro magnetic waves, voltages, currents, deformations, acoustic waves, temperature, thermal waves,~~ wherein said ~~The~~ method only uses information obtained through a set of mounted sensor(s) that measure physical properties of said subject, wherein information from sensor(s) is analyzed by computing automatic means to determine presence of priory automatically defined characteristics specific to the subject~~[[.]].~~ ~~[[W]]wherein term functional integrity monitoring also stands for malfunction detection and prediction~~ said priory defined characteristics are either computed by said computing means at some early time frame or preset or both, and said method does not use any actuators that might send energetic signals to probe said subject, and said method results does not rely on successful acquisition of acoustic emission or other short term unrepeatable events originated by materials composing said subject.

### Claim 2 (Currently Amended)

An apparatus comprising digital processing component ~~capable of implementing method of claim 1 and plurality of~~ passive sensors providing measurements to said process~~[[or]]ing component[[.]].~~ ~~[[W]]wherein said plurality accounts for at least may be formed by just one sensor.~~

### Claim 3 (Original)

A component or an assembly that has apparatus of claim 2 built-in.

### Claim 4 (Original)

An assembly containing more than one object of claim 3, where in the apparatuses of these objects are linked to form a single network or multiple networks.

### Claim 5 (Original)

A method of claim 1 that provides data that employed to report unusual usage events or usage patterns.

### Claim 6 (Original)

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An implementation of the method of claim 1 that utilizes public informational and or signal networks to transmit and or receive information to/from remote location.

Claim 7 (Original)

An object that utilizes method of claim 1 to forecast recommended time of own replacement.

Claim 8 (Canceled)

Claim 9 (Original)

An implementation of the method of claim 1 where in single physical node is used to process data from multiple independent subjects.

Claim 10 (Original)

An apparatus of claim 2 that uses autonomous energy source.

Claim 11 (Original)

An apparatus of claim 4 that uses network as an energy source.